DOCUMENT RESUME

ED 204 964 EC 133 535

AUTHOR	Wilson, Jimmie Joan
TITLE	Tutoring/Notetaking as a Support Service for Deaf Students.
INSTITUTION	Rochester Inst. of Tech., N.Y.
SPONS AGENCY	Office of Special Education (ED), Washington, D.C.
PUB DATE	Apr 81
NOTE	19p.: Paper presented at the Annual International Convention of The Council for Exceptional Children (59th, New York, NY, April, 1981, Session F-52).
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Ancillary School Services; College Students; *Hearing Impairments; Higher Education; *Mainstreaming; Program Descriptions; Tutorial Programs; *Tutoring
IDENTIFIERS	*Notetaking

ABSTRACT

The paper describes a program developed at the National Technical Institute for the Deaf in which hearing impaired students in the academic mainstream receive tutoring/notetaking support services. A notetaking system is employed in which the notetaker writes from four to six readable copies of notes at one time. The notetaker, a trained normally hearing person, then acts as the tutor for the class as needed by deaf students. Tutors are trained in problems related to hearing loss, techniques and functions of notetaking, and tutoring. Tutors must be prepared to deal with requests for clarification of assignments, test preparation, course content study, or project completion. An exerpt from the training manual is included to illustrate training in notetaking. The tutor's potential role in acting as a liaison with classroom teachers can help to ensure success. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED204954

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Jimmie Joan Wilson

National Technical Institute for the Deaf

Rochester Institute of Technology

Rochester, New York

Session Title: Supporting Mainstreamed Students at the National Technical Institute for the Deaf

Paper Title: Tutoring/Notetaking as a Support Service for Deaf Students

Council for Exceptional Children

59th Annual International Convention

April 12, 17, 1981

New York

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jimmie Joan Wilson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This paper was written in the course of an agreement between the Rochester Institute of Technology and the United States Department of Education, Office of Special Education.

EC 130 353

Abstract

The provision of tutoring/notetaking support services for deaf students in the academic mainstream has been shown to be crucial. The National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT), Rochester, New York pioneered in research and development of tutoring/notetaking methods and training, and has been involved in the dissemination of this program to other schools and colleges providing support services to deaf students. A history of the program's development is delineated, and an overview of the training program is implemented at NTID with hearing students employed as tutor/notetakers in classrooms where deaf students are mainstreamed.

The Tutor/Notetaker Training Program at the National Technical Institute for the Deaf (NTID), one of ten colleges of the 150-year old Rochester Institute of Technology (RIT), in Rochester, New York, is the result of research and development begun in 1975. Dr. Russell Osguthorpe, the primary researcher in the project, had three principles as guidelines:

(Table I)

1. The program must provide services that will allow deaf students to succeed in the regular classroom.
2. The cost of the program must be low enough that most schools could afford to implement it.
3. Training components must be structured and exportable in order that school systems could implement the program with existing personnel.

With these principles in mind, the project was begun. Today it is in full implementation. Dr. Osguthorpe worked with the late Ms. Beth Duffin, the first coordinator of the Tutor/Notetaker Training Program (T/NTP), and with NTID professionals in support service provision. They laid a solid foundation on which the program now functions.

This paper will give the history of NTID's early efforts at providing adequate academic support services and the events that led to the research and eventual implementation of the methods and materials, at NTID and elsewhere. A general overview of the training components will show the who, what, and how along with the why of tutoring/notetaking as a support service for hearing-impaired students in the academic mainstream.

NTID was established in 1965 by Public Law 89-36, and the first 71 students enrolled at RIT in the Fall of 1968. None of the specialized vocational-technical programs now offered by NTID had been started, so all these students went directly into baccalaurate programs in RIT. The programs, all technical in nature, afforded deaf students the first opportunity for support services in such programs.

For the NTID personnel working with the students, the challenge was to devise support services to ensure true equality of access to the classroom and materials. Deaf students face communicative barriers, rather than architectural ones, in their search for equal educational opportunities. NTID continues to be the only federally-funded four year college program for the deaf, though more than 100 other colleges now provide extensive services to hearing-impaired students. Many of these programs took advantage of the pioneering work of NTID.

In the early years, support personnel assumed that sign language interpreting would be necessary, and that support was provided. It soon became obvious that students who had been stars in elementary and secondary schools began experiencing great difficulty in more rigorous college courses. Also, then as now, only 50% of the students coming to NTID know manual communication, so other types of classroom support are necessary. These students prefer to use speech-reading or residual hearing, so that an interpreter who is necessarily a little behind what is being said can be confusing.

TABLE II

Reading Comprehension profile scores for entering NTID students 1974-1976, based on the reading comprehension section of the California Reading Test (California Achievement Test), Junior High Level.

Profile Score	Percentage of NTID Students		
	1974	1975	1976
1	12.2	21.4	19.2
2	28.6	38.3	27.2
3	29.0	20.9	25.1
4	15.7	10.5	13.3
5	14.5	8.9	15.2

Interpretation of Profile Scores

1. Student cannot comprehent the message in written English. (Grade level below 5.0-5.9)

2. Student comprehends little of the content of the message in written English. (Grade level 6.0-6.9)

3. Student comprehends, with difficulty, about half of the message in written English. (Grade level 7.0-7.9)

4. Student comprehends most of the content of the message in written English. (Grade level 8.0-8.9)

5. Student comprehends the complete message in written English. (Grade level 9.0-12.0 and above)

Welch, W.A. and Wilson, F.L. A Comparison of Entering Students, 1974-1976. Rochester, New York: National Technical Institute for the Deaf, 1977.

As Table II shows, students with hearing loss are historically behind their hearing peers in language development, particularly in reading ability. Even with an interpreter, if the teacher uses language that is beyond the ability of the students, their understanding manual communication will not ensure their understanding of the material.

NTID support professionals began looking for ways to overcome the students' language deficits and communication needs. Dr. Ross Stuckless worked on a notetaking system that is now used across the country and in Canada. The notebook and non-carbon paper system enable a notetaker to write from four to six readable copies of notes at the same time. More than 50,000 sets of notebook and paper have been distributed by the RIT Bookstore.

This answered the question of how to take notes. Who should do the notetaking was a harder question. When NTID was new, many normally hearing students volunteered to take notes. Even today, some still do. But when the novelty wore off, the supply of volunteers dwindled. At the same time, NTID enrolment increased yearly to today's 1000. It also became obvious that the quality of notes taken by volunteers varied widely due to students' abilities. It is very difficult to take good notes on new or complicated material and to participate in the class at the same time.

NTID students told educational specialists that good, dependable notes were vital. In some cases, students said the notes were their primary source of study material after the textbook.

Based on this feedback, some educational specialists went to classes as notetakers. Some still do in special instances. At the same time, researchers such as Dr. Osguthorpe began looking for alternatives, and one which looked good was to pay the hearing students to do the notetaking.

First, the components of good notetaking, training and evaluation had to be identified, so the research and development was begun. A study (Osguthorpe, 1979) determined that deaf students preferred notes taken by trained notetakers over the notes taken by volunteer, peer notetakers who weren't trained. Osguthorpe also found that the quality of notes taken by volunteers was not good, with some containing errors which were actually detrimental to the deaf students.

Basing his work on the experiences of professionals who were working as notetakers, and I was one such person, on questionaires and interviews with deaf students and teachers, and on his own work in peer tutoring, Osguthorpe wrote THE TUTOR/NOTETAKER: A GUIDE TO PROVIDING ACADEMIC SUPPORT TO THE MAINSTREAMED DEAF STUDENT. This manual was written for providers of tutoring/notetaking services, and is the textbook for the NTID training program.

A second manual, THE MANAGER'S GUIDE, was written in the Fall of 1978 by Osguthorpe, Warren Goldmann, John Panara, and I. Goldmann and I were among the first NTID professionals to function as tutor/notetaker managers, and our experiences are reflected in the manual. It gives basic information on planning a tutor/notetaker program, recruiting personnel, training them, and implementing the system. Both these manuals were published by the Alexander Graham Bell Association for the Deaf in 1980.

The Tutor/Notetaker at NTID

NTID's model is for a trained, normally-hearing student to take notes in class, and then act as the tutor for the class as required and requested by the deaf students. This is the model, I repeat, and each of the NTID support teams adapts the model to fit their unique needs. Michael Miller's presentation will describe some of these adaptations. Because of the large numbers of deaf students in RIT programs, around 250 at present, support services -- interpreting, tutoring, notetaking, and advising -- are managed by support teams attached to 7 of the 10 RIT colleges. For example, a deaf student in classes taught by the College of Engineering receives support services from the Science/Engineering Support Team; art students are supported by the Fine and Applied Arts Support Team, and so on.

In a program with fewer deaf students, support services could be handled by one office. Nevertheless, it helps to have a tutor/notetaker manager with subject matter credentials who can establish peer relationships with faculty members who have deaf students in their classes. The student tutor/notetakers' work can be evaluated better by a manager who is credentialed in the subject matter and experienced in providing support services, and such a professional can be a resource to student tutors.

The Training Program

Our training program, pages 32 through 72 of THE MANAGER'S GUIDE (Osguthorpe, et al, 1980), is divided into three distinct sections: training in the problems related to hearing loss; training in the techniques and functions of notetaking; and training in tutoring. In my opinion the first section is the most

crucial: information about hearing loss or deafness, the invisible handicap.

Consider that the students who come to NTID represent the cream of the crop from highly acclaimed special programs from all over the United State, yet their average reading level is seventh grade and they comprehend only 50 percent, with difficulty, of what they read. Then the magnitude of the prolbem begins to emerge. Writing skills are usually a grade level or more lower.

Hearing loss is a handicap of communication. Learning to speak, read, or write a language you cannot completely hear can be an almost unsurmountable barrier for some students. Others, more motivated or given better educations, succeed in spite of their handicap.

We also give particular attention to sensitizing our tutor/notetakers to the fact that our culture doen not deal well with anyone who is different. Nix (1976) and others have compared the problems of deafness with those of racial minorities, and the legislation on the rights of the handicapped with civil rights laws. We help the tutor/notetakers deal with their own attitudes about the handicapped, and then with the attitudes of others with whom they must work. Because of their communication difficulties, hearing-impaired persons are often ostracized and ridiculed, and classroom teachers are hostile because of fear.

College students, in fact anyone, can have difficulties dealing with the hostilities shown by teachers who are struggling with their own cultural biases toward the handicapped, or by the handicapped person themselves toward anyone upon whom they have to depend for support. The tutor/notetakers are helped to recognize

these hostilities, to understand where they come from, and to deal with them appropriately.

It has been a real pleasure to see the seriousness of the hearing students, and to watch them become a part of the solution to problems of mainstreaming. Another pleasure has been knowing that every year a few of our student tutor/notetakers go into some area of special education on the graduate level or are able to use their experiences at RIT as a stepping stone to a career in other helping professions.

Tutoring Training. A tutor/notetaker must be prepared to deal with a variety of tutoring requests:

1. Procedures clarification. This type of tutoring can be a quick review of the notes to help the student make sure of an assignment or responsibility.
2. Test preparation. This would involve studying, and perhaps the tutor prepares a practice test with the student.
3. Course content study. This is a more in-depth, remedial type of tutoring. For example, a student might be haveing problems understanding a concept or a chapter in the textbook. The tutor could discuss the concepts, bring in background information, then ask questions to make certain the student understands. This requires real teaching and diagnostic skills.
4. Completing a project. Many times students are unclear about how to go about finding a topic for a paper or project, or need help in choosing an appropriate one. The tutor could lead the student through a decision process by suggest-

ing alternatives and helping the student come to a decision. The tutor would then be sure to ask the student to verify the choice with the teacher.

Training for tutoring focuses on helping the tutor become more empathetic, supportive, non-punitive, and encouraging. Attention is given to communication needs of students and building rapport and trust with students. The following is an excerpt from the "Tutoring Techniques Skills Checklist" (Osguthorpe, 1980, page 36) and will give an overview of some of the topics covered in tutor training:

(TABLE IV)

Notetaking Training. Notetaking, which is difficult to do, is relatively easy to learn or to teach. The principles are very straightforward, and the basic instruction can be done in a single two or three hour session. The basic instruction should be followed by practice and evaluation sessions, and once notetakers have begun work, they should be given regular, daily feedback and evaluation for several weeks. This is the responsibility of the manager, and Michael Miller will elaborate on that in a minute.

Perhaps a look at a sample page of notes will give some indication of the main points of the notetaking training:

(TABLE V)

We can see that the name of the course, the date, and page number is included, and this would be written on each page of notes taken during the class. Wide margins are used, leaving plenty of "white space" for the students to use in writing in

TABLE IV

Tutoring Techniques Skills Checklist

Tutor _____ Student _____

Course _____ Date _____

1.	How effective is the rapport you have developed with your student(s)? If you tutor more than one student, respond separately for each	negative	1	2	3	4	5 positive
2.	Is the student becoming more independent or less independent of you and your services?	less	1	2	3	4	5 more
3.	How effective are your communication skills?						
	Expressive	poor	1	2	3	4	5 excellent
	Receptive	poor	1	2	3	4	5 excellent
4.	How effective are you at using visual aids (books, diagrams, pictures)?	poor	1	2	3	4	5 excellent
5.	How often do you use praise and encouragement when the student performs well?	never	1	2	3	4	5 very often
6.	How often do you punish incorrect answers (verbally or by a disappointed facial expression)?	very often	1	2	3	4	5 never

Science and Human Values 5/3/81

p. 1

Today's lecture is from Lesson 24:
"MAN - Revolution about Evolution"
(Revolution here means controversy, argument, disagreement, conflict.)
(Evolution here means very, very slow change, millions of years.)

H.W. → for tomorrow, read about Darwin + Congreve (ap).)

Lecture After Darwin published his book, the anti-evolutionists were against the biological evidences (fossils) that seem to show man came from apes or monkey-like creatures (animals).
(Anti-evolutionists were people who did not agree with the idea or theory of evolution; anti means against.)

The anti-evols. said scientists were infidels (ap) who made a false fossil ape/man skeleton. "It was a trick."

(ap Persons who do not believe in the Christian God.)

to use in writing in their own comments, questions, or other information later. Homework is clearly marked, so that the student would have no problem in finding the assignment quickly. The notetaker has included simple definitions or sysonyms to difficult vocabluary, even though the lecturer did not give that information. The notes are written in complete sentences, and organized in easily readable and understandable form. If vocabulary had been used that the notetaker did not understand, this would have been indicated by "sp", as an indication to the notetaker and student that this should be checked later. The word "infidel" was asterisked, and the notetaker added a simple definition later, having left enough space at the bottom of the page to write it in later.

These are just a few of the many points that are explained, amplified and illustrated in THE TUTOR/NOTETAKER. Ample time should be given in the initial training and in later follow-up and management to prevent sloppy habits being developed. Notetakers will feel more secure in the quality of their notes if they get regular feedback and praise where appropriate. The teacher should also be given a copy of notes, and asked for evaluation, feedback and suggestions for changes or improvements.

Liaison and Information to Classroom Teachers

Experience at NTID has shown that any mainstream situation can have very negative impacts on the classroom teacher if the proper information and liaison are not provided. As has been mentioned, our culture does not deal well with people who are different. Most classroom teachers have had no prior experience with deafness, much less have a deaf student in class. With

the stresses of having to deal with deafness, their own natural fears of the unknown, plus support personnel in the classroom, the situation is ripe for conflicts and confusion. In this situation, no one will benefit.

We have found that teachers need to know as far beforehand as possible about the presence of deaf students and the kinds of support the students will have. Teachers need to understand the roles and responsibilities of the support personnel, and to know how these supports will benefit teachers as well as students. Everyone in the situation, students, teachers and administrators, needs to have as much information as possible about the total program.

Tutoring and notetaking can be real supports for the classroom teacher, and the teacher should realize this in order to make best use of the services. Having a daily record of each class can be excellent feedback for the teacher as well as a source for making up quizzes. And, in case a substitute or replacement is ever necessary, a full record of the class is readily available. The new teacher can continue with the same goals as the previous teacher.

The teacher needs to have a good working trusting relationship with the support personnel, so that they will all see each other as a team. Teachers can feel threatened by the presence of non-students in the classroom, and the support personnel need to be aware of this and make sure the threat is minimized. Rapport and communication are essential, of course, in building a team spirit.

The teacher can also reinforce the deaf students' uses of

the support services. Suggesting tutoring strategies, discussing the students' progress with the tutor, evaluating notes, providing supplementary materials -- all are ways of taking an active role in the process and will give the teacher a better feeling about the progress and support of the deaf students are receiving.

A certain special education mystique has grown up in the past, with "regular" teachers feeling a lack of confidence if they do not have special training. We have found that the special training is not as important as a sense of tolerance and acceptance, and a willingness to work with support personnel. The generalist can become a specialist in short order if he or she will make appropriate use of the support services.

Conclusion

In summary, we have found that hearing students can function quite adequately as tutor/notetakers for hearing-impaired peers, if training and management systems are appropriate and consistent. The resulting interaction between the student tutor/notetakers and their clients is very positive and in the future can benefit themselves and society. The hearing students benefit because meaningful experiences are abailable, and the hearing-impaired students benefit from adequate support services, ensuring equal access to classroom information. The teachers benefit by being freed from some of the extra attention some handicapped students may need in a mainstreamed classroom

In short, the results are positive and the costs can be relatively low. I recommend the NTID Tutor/Notetaker program to any school or college wiching to provide academic support services to hearing-impaired students.

References

Nix, G. Mainstream education for hearing-impaired children and youth. New York: Grune and Stratton, 1976.

Osguthorpe, R. The tutor/notetaker: Providing academic support to mainstreamed deaf students. Washington, D.C.: The Alexander Graham Bell Association for the Deaf, Inc., 1980.

Osguthorpe, R., Panara, J., and Hurwitz, T. The NTID Tutor/Notetaker program: A summary of evaluative data. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, April, 1979.

Osguthorpe, R., Wilson, J., Goldmann, W. and Panara, J. The manager's guide. Washington, D.C.: The Alexander Graham Bell Association for the Deaf, Inc., 1980.

Welch, W. and Wilson, F. A comparison of entering students, 1974-1976. Rochester, New York: Internal report for National Technical Institute for the Deaf, 1977.

Wilson, J. Effective notetaking for hearing-impaired students. Washington, D.C., The Volta Review, September, 1980, 82:5, 294-296.

Wilson, J. A tutor/notetaker program for deaf students that really works. Tokyo, Japan: The Jornal of the Society of Research on Hearing Impaired Education, 1980. Translated by Heiichi Hamatsu. English re-print available from the author.

Wilson, J. Notetaking: A necessary support service for hearing-impaired students. Reston, Virginia: TEACHING Exceptional Students, accepted (March, 1981) for publication.

References Continued

Wilson, F. The tutor/notetaker as a support service for deaf students: Viewpoint of a classroom teacher. Paper presented at the May, 1980 meeting of the Association on Handicapped student Services Programs in Post-Secondary Education, Denver, Colorado.